

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Applicant: Hezar et al.  
Filed: Herewith  
For: AMPLIFIER USING DELTA-SIGMA MODULATION

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

1. Pursuant to 37 C.F.R. 1.97 and 1.98, and in compliance with 37 C.F.R. 1.56, the Office's attention is directed to the patents, pending applications, publications and other information listed on the attached PTO-1449. A copy of each listed document is enclosed except for: (a) pending applications or (b) those previously cited or submitted to the Office in the following application(s) upon which this application relies for an earlier filing date under 35 U.S.C. 120:

Serial No.: \_\_\_\_\_  
Filing Date: \_\_\_\_\_

Regarding any document, publication or other information for which a date is not given on the attached PTO-1449, Applicant(s) believe(s) the same may qualify as "prior" art to this application and should be treated accordingly, although Applicant(s) reserve(s) the right to contest the prior art status of any document, publication or information, should issue arise.

2. Regarding each listed document that is not in the English language, an English-language translation accompanies this Statement as indicated on the attached PTO-1449 or a concise explanation of the relevance of the document is set forth in the following document(s):

- (a) \_\_\_ Copy of each English language version of a search report indicating the degree of relevance found by the foreign office of each document being submitted from the search report.
- (b) \_\_\_ Attachment entitled "Concise Explanation of Relevance of Non-English Language Documents".

3. Pursuant to 37 C.F.R. 1.97(b) this Statement is being filed (one must be checked):

- (a) X Within 3 months of the filing date or date of entry into the National Stage.
- (b) \_\_\_ Before the mailing date of a first Office Action on the merits. If this Statement is not filed before the mailing date of a first Office Action on the merits, the required certification is given below or, in the absence thereof, the Office is authorized to charge the required fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 20-0668 for consideration of this Statement.
- (c) \_\_\_ Before the mailing date of a first Office Action after the filing of a request for continued examination under 37 C.F.R. 1.114.

(d) \_\_\_ After the period set forth in 37 C.F.R. 1.97(b) but before the mailing date of either a final action or a notice of allowance.

(1) \_\_\_ The required certification is given below, or

(2) \_\_\_ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(p) for consideration of this Statement, or

(3) \_\_\_ Charge the fee set forth in 37 C.F.R. 1.17(p) to Deposit Account No. 20-0668

(e) \_\_\_ After the mailing date of either a final action or a notice of allowance, but before payment of the issue fee. Petition hereby is made for consideration of this Statement and the required certification is indicated below.

(1) \_\_\_ Enclosed is a check covering the fee set forth in 37 C.F.R. 1.17(i)(1), or

(2) \_\_\_ Charge the fee set forth in 37 C.F.R. 1.17(i)(1) to Deposit Account No. 20-0668.

4. Certification (if applicable)

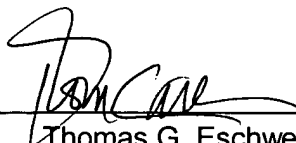
(a) \_\_\_ The undersigned hereby certifies that each item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this Statement.

(b) \_\_\_ The undersigned hereby certifies that no item of information contained in this Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the undersigned's knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. 1.56(c) more than 3 months prior to the filing of this Statement.

5. The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 20-0668.

Respectfully Submitted,

ESCHWEILER & ASSOCIATES, LLC

By   
Thomas G. Eschweiler  
Registration No. 36,981

National City Bank Building  
629 Euclid Avenue, Suite 1210  
Cleveland, Ohio 44114  
(216) 502-0600

CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this paper, and the documents referred to as attached or enclosed, are being deposited with the United States Postal Service on the date set forth below in an envelope as "Express Mail Post Office to Addressee" service under 37 CFR 1.10, with the below indicated mailing label number, addressed to Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: January 22, 2004

  
Christine Gillroy

Mailing Label Number EV405030291US

Please type a plus sign (+) inside this box



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Substitute for Form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete If Known</b>	
				Application Number	
				Filing Date	
				First Named Inventor	
				Group Art Unit	
				Examiner Name	
Sheet	1	of	1	Attorney Docket No. TI-36621	

U.S. PATENT DOCUMENTS						
Exam. Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Doc.	Date of Pub. of Cited Doc. (mm-dd-yyyy)	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	AA	5,103,228		Voorman et al.	04/07/1992	Entire Document
	AB	5,305,004		Fattaruso	04/19/1994	Entire Document
	AC	2001/0005174	A1	Olson et al.	06/28/2001	Entire Document
	AD	6,275,177	B1	Ho et al.	08/14/2001	Entire Document
	AF	2002/0075068	A1	HSU	06/20/2002	Entire Document
	AG	6,466,087	B2	Ruha	10/15/2002	Entire Document
	AH	2002/0186155	A1	Olson et al.	12/12/2002	Entire Document
	AI	2003/0095013	A1	Melanson et al.	05/22/2003	Entire Document
	AJ	6,646,502	B1	Kruiskamp	11/11/2003	Entire Document

FOREIGN PATENT DOCUMENTS							
Exam. Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Doc.	Date of Pub. of Cited Doc. (mm-dd-yyyy)	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>2</sup> (if known)			
	BA						
	BB						
	BF						
	BG						

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Exam. Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	"A Multibit Delta-Sigma Audio DAC with 120-dB Dynamic Range", ICHIRO FUJIMORI, AKIHIKO NOGI and TETSURO SUGIMOTO, IEEE Journal of Solid-State Circuits, Volume 35, No. 8, August 2000, pp. 1066-1073.	
	CB	Institute of Electrical and Electronics Engineers, 2002 Digest of Technical Papers and Visuals Supplement 2002 to the Digest of Technical Papers, IEEE International Solid-State Circuits conference, Volume Forty-Five, ISSN 0193-6530, 13.3 "A Dual-Mode 80MHz Bandpass $\Delta\Sigma$ Modulator for a GSM/WCDMA IF-Receiver" T. SALO, T. HOLLMAN, S. LINGFORS and K. HALONEN, 7 pgs.	
	CC		
	CD		
	CE		
	CF		

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

**US and Foreign Patent Documents:** <sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

**Other Prior Art/Non-Patent Literature Documents:** <sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English Translation is attached.